Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

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1. (Currently amended) Apparatus for the treatment of hazardous material and decontamination of items contaminated with such material comprising

an operator accessible treatment vessel <u>having at least one decontamination tray</u> adapted to hold said hazardous material or contaminated items,

- a holding tank capable of holding a carrier medium,
- a catalyst hopper capable of holding a catalyst,
- a mixing vessel <u>connected to each of the holding tank</u>, <u>catalyst hopper and treatment</u> <u>vessel</u>, facilitating mixing of the carrier medium and the catalyst,

wherein the treatment-vessel apparatus comprises one or more treatment chambers, the treatment chambers comprising

- (i) a housing containing a plurality of treatment beds and a light source capable of irradiating contents within the treatment chambers with a predetermined wavelength of light, each treatment bed comprising means for inducing turbulent flow within the carrier medium, and
- (ii) a distribution header <u>connected to the mixing vessel</u> for controlling the flow of carrier medium and catalyst into the treatment chambers.

2-10. (Cancelled)

11. (New) Apparatus according to claim 1 wherein the turbulent flow within the carrier medium is induced by one or more channels on the surface of the treatment bed, each channel having a textured surface.

- 12. (New) A method for the treatment of hazardous material and decontamination of items contaminated with such material, comprising the steps of providing the hazardous material and contaminated items in a treatment chamber of the apparatus according to claim 1; and irradiating said hazardous material and contaminated items in the presence of a catalyst with light having a wavelength in the range of from 310 to 400 nanometers.
- 13. (New) A method according to claim 12 comprising the step of treating at least one of equipment and instruments contaminated with hazardous material.
- 14. (New) A method according to claim 13 comprising maintaining the at least one of equipment and instruments contaminated with hazardous material stationary whilst irradiating it with a predetermined wavelength of light.